AMMONIA REFRIGERATION MANAGEMENT PROGRAM
STANDARD OPERATING PROCEDURES — HIGH STAGE RECIPROCATING COMPRESSOR OPERATION

Technical Operating Specification (TOS)

Function

The compressor is a pump to maintain desired suction pressure on a refrigeration system by removing ammonia vapor from the (refrigeration, icemaker) (circle one) (liquid recirculator, evaporator, icemaker, accumulator)(circle one). In the process, low-pressure ammonia vapor is compressed which creates heated high-pressure ammonia vapor. The high-pressure ammonia vapor is simultaneously pumped to the evaporative condensers where it is liquefied. The compressor oil is cooled via by a water-cooled, shell and tube heat exchanger mounted to the side of the compressor. The oil is pumped from the compressor oil pump through the shell and water is pumped through the tubes. The water absorbs the heat from the oil, and is then routed through the cylinder heads and, having been supplied from the (condenser, fresh water line) (circle one) continues to the (condenser, drain) (circle one). The cool oil flows from the oil cooler into the seal housing, through the crankshaft to the rod and main bearings and returns to the crankcase sump. System suction pressure is maintained in the desired range by means of (pressure switches, or transducers) (circle one) acting upon unloaders and/or the compressor starter.

Description	Capacity/Size	Operating Limits	Deviations/Consequences
Mycom N4B / N8BWB	**"X"HP** (Replace "X" with motor horsepower rating as noted on the nameplate) "X"TR (Replace "X" with compressor rating at operating pressure conditions)	Desired Suction pressure: 15 -25 psig (Indicate normal pressure range for your system)	High suction pressure will result in temperatures in the equipment the compressor is attached to. Maximum pressure is 150 psi.
		Desired Discharge pressure. 120 – 150 psig (Indicate normal pressure range for your system)	High discharge pressure may result in deadheading the compressor. Maximum 300 psi
		Desired 210 psig maximum discharge pressure switch setting for shutdown or unload	Over-pressurization may result in operation of pressure relief valves.
		Lubrication oil pressure: 40 - 60 psig	Loss of compressor lubrication may result in compressor seal damage and a release of ammonia.
		Lubrication oil temperature: 100˚F-130˚F	High lubrication oil temperature could result in compressor damage and a release of ammonia.
		Discharge temperature: 300˚F	High discharge temperature could result in compressor damage and a release of ammonia.

Original Date:_____

Revision Date:_____